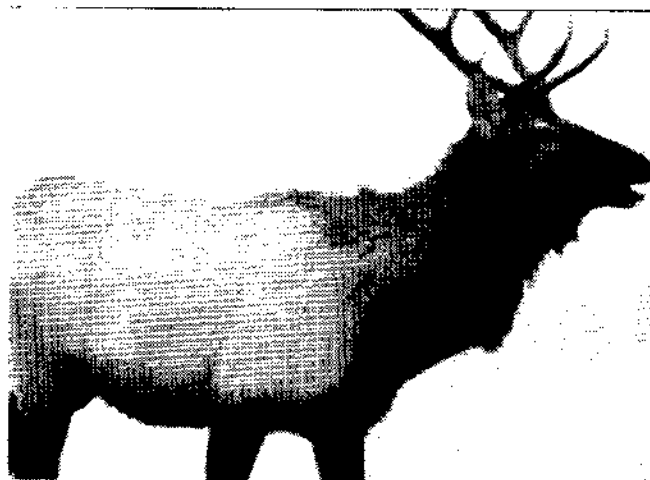


# **\*\*ATTENTION\*\***

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# MAJOR CHANGES IN WASHINGTON ELK HUNTING

Washington Department of Wildlife implemented major changes in hunting seasons in the fall of 1984. These changes were called Resource Allocation and included hunting method selection regulations which required elk hunters to choose among three types of weapons; modern firearm, archery, and muzzleloader. Weapon choice selection is just one of the new regulations aimed at improving both the quality of hunting and enhancing the diversity of hunting opportunity in Washington. Limited entry hunts, branched antler regulations, and stratified seasons were all components of Resource Allocation. This report describes the improvements in elk hunting season opportunities and statistics that have characterized the 1984-86 seasons.

One of the original goals of Resource Allocation was to reduce the amount of hunter crowding during our general rifle elk seasons. Washington is the smallest elk producing state, yet has the second largest human population of the 13 western states. Our regulations were designed to maintain overall hunter participation while spreading their field activities throughout the fall season. Our most serious hunter crowding problem has been historically during the opening weekend of the general rifle season. Hunting seasons were developed that would improve hunting opportunity for primitive weapon users with the hope that more hunters would choose to hunt with either archery or muzzleloader equipment; thereby reducing the number of hunters that are in the field during the modern firearm seasons.

## Hunter Crowding During Modern Firearm Seasons Has Been Reduced

Although overall elk tag sales are lower

than the levels of the 70's, participation in our primitive weapon seasons (i.e. archery and muzzleloader) have increased since the beginning of Resource Allocation. Total elk tag sales however, have remained stable since 1984. As a result, modern firearm elk tag sales has declined. The net result of implementing either/or weapon regulations and increasing the diversity of hunting opportunity has been to shift approximately 15% of the elk hunters out of the general modern firearm season and into either the archery or muzzleloader seasons. This shift coupled with other factors (such as stratified seasons) has reduced hunter crowding during general rifle hunts, thereby improving one aspect of quality hunting for the rifle hunter. Current regulations have made Washington a leader among the western states in distributing the total elk harvest among the three user groups. Approximately 10% of the total number of elk killed in Washington are taken by archers compared to an average of 5% in other western states. Within the modern firearm season, elk harvest is better spread throughout the entire season. Historically, over 60% of the bull elk killed in Washington were taken during the opening five days of the modern firearm season. Data from the 1985 season indicated that only 40% of the bull harvest were taken during the first five days of the modern firearm season.

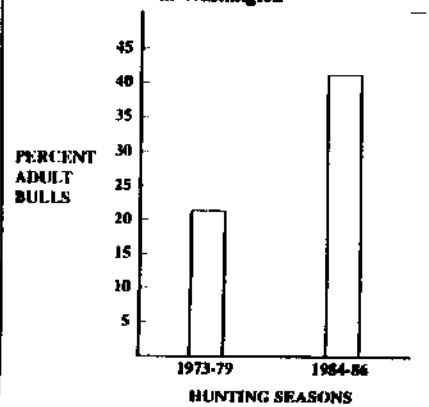
## All Hunters Are Enjoying A Greater Harvest of Mature Bull Elk

Even with the increase in primitive weapon season participation a large majority of hunters in Washington select to hunt during the modern firearm seasons. During the initial stages of Resource Allocation there

was a concern that the increased primitive weapon opportunity would result in a decrease in the opportunity for the average rifle hunter. This was an especially emotional issue since the improved early seasons meant the archer and muzzleloaders would get the first crack at the bulls. In addition, the early seasons provide substantial hunting opportunity of bull elk during the bugling period.

According to the antler point distribution from hunter submitted report cards and antler point/age class data from department personnel field checks, primitive weapon bull elk harvest is composed of a higher proportion of adults than the modern firearm harvest (Table 1). However, over 85% of the total number of adult bulls in the harvest are taken during the modern firearm season (Table 1). Historical comparison of bull age data indicates that more mature bulls are being harvested now by all hunters than were taken in the 1970's (Figure 1).

Figure 1.  
The Percent of Adult Bulls Harvested  
in Washington



# MAJOR CHANGES IN WASHINGTON ELK HUNTING

Table 1.

ANTLER POINT DISTRIBUTION AND AGECLASS OF BULL ELK KILLED BY DIFFERENT USER GROUPS IN WASHINGTON, 1984-86

HUNTING METHOD	ANTLER POINTS	TOTAL REPORT CARDS	
		N	%
ARCHERY	1	190	39
	2	33	7
	3	29	6
	4	69	14
	5	96	20
	6	36	12
	7	10	2
WEAPON TOTAL .....		483	100
PERCENT ADULT BULL IN THE ARCHERY HARVEST = 52 %			
PERCENT OF THE TOTAL ADULT BULLS IN THE HARVEST = 10 %			
MODERN FIREARM	1	3,664	54
	2	656	10
	3	449	7
	4	734	11
	5	845	13
	6	264	4
	7	42	1
	8	3	
	9	1	
WEAPON TOTAL .....		6,658	100
PERCENT ADULT BULL IN THE MODERN FIREARM HARVEST = 34 %			
PERCENT OF THE TOTAL ADULT BULLS IN THE HARVEST = 87 %			
MUZZLELOADER	1	100	43
	2	30	13
	3	10	4
	4	30	13
	5	43	19
	6	12	5
	7	1	1
	8	1	1
	9	1	1
WEAPON TOTAL .....		228	100
PERCENT ADULT BULL IN THE MUZZLELOADER HARVEST = 42 %			
PERCENT OF THE TOTAL ADULT BULLS IN THE HARVEST = 3 %			

miles open to early (September-October) archery and no area open to early muzzleloader hunting. Since 1984, the amount of area open for early primitive weapons has increased to 23,500 square miles for archers and 3,000 square miles for muzzleloader hunting. There was also an increase in the late season areas open; from 3,500 square miles in 1982 to 7,000 square miles in 1987 for archers and from 500 square miles in 1982 to 2,500 square miles in 1987 for muzzleloaders.

In summary, recreational elk hunting opportunity in Washington has improved substantially since 1984. Modern firearm hunters are seeing an increase in the number of mature bulls in the population and subsequent harvest, a decrease in the number of hunters during the rifle seasons, and the bull harvest is better distributed throughout the general season. Primitive weapon hunters are enjoying higher success rates, an increase in the opportunity to harvest mature bugling bulls, and substantially more area is open for hunting during both the early and late seasons.

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## Success Rates Have Improved For Primitive Weapon Hunters

The difference in the efficiency among hunting methods was originally considered when designing the new seasons. For instance it requires almost twice as many days (100) of hunting to kill one elk with archery equipment than required by modern firearm equipment (55 days). Coupled with this difference in days/kill, overall hunting success also varies according to user group. Typically archers have a lower success rate than other user groups. Since Resource Allocation, success rates have increased for the primitive weapon user and remained unchanged for the modern firearm user. Part

of the reason for this increase is the primitive weapon opportunity for either sex elk hunting. Since 1984 approximately 55% of the archery and muzzleloader elk harvest has been antlerless. Whereas only 30% of the total modern firearm harvest has been antlerless.

## The Number of Square Miles Open to Hunting Has Increased For Archers and Muzzleloaders

Another factor contributing to the improved success rates has been the increase in the amount of land open for primitive weapon hunting. Prior to Resource Allocation there were approximately 2,000 square

